LNP™ THERMOCOMP™ RC006H compound

Polyamide 66

SABIC Innovative Plastics

Message:

LNP THERMOCOMP* RC006H is a compound based on Nylon 66 resin containing 30% Carbon Fiber. Added features of this material include: Electrically Conductive, Healthcare
Also known as: LNP* THERMOCOMP* Compound RC-1006
Product reorder name: RC006H

General Information			
Filler / Reinforcement	Carbon Fiber,30% Filler by Weight		
Features	Electrically Conductive		
Uses	Medical/Healthcare Applications		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			
	1.27		
--	1.28	g/cm³	ASTM D792
--	1.28	g/cm³	ISO 1183
Molding Shrinkage			
Flow : 24 hr	0.10	%	ASTM D955
Across Flow : 24 hr	0.60	%	ASTM D955
Across Flow : 24 hr	0.56	%	ISO 294-4
Flow : 24 hr	0.080	%	ISO 294-4
Water Absorption			
24 hr, 50% RH	0.66	%	ASTM D570
Equilibrium, 23°C, 50% RH	1.1	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	27800	MPa	ASTM D638
--	22700	MPa	ISO 527-2/1
Tensile Strength			
Break [2]	266	MPa	ASTM D638
Break	271	MPa	ISO 527-2/5
Tensile Elongation			
Break [3]	1.7	%	ASTM D638
Break	1.9	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span [4]	18800	MPa	ASTM D790

-- [5]	21000	MPa	ISO 178
Flexural Strength [6] (Break, 50.0 mm Span)	408	MPa	ASTM D790
Coefficient of Friction			ASTM D3702 Modified
vs. Itself - Dynamic	0.46		
vs. Itself - Static	0.36		
Wear Factor - Washer	20.0	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
23°C	96	J/m	ASTM D256
23°C [7]	11	kJ/m²	ISO 180/1A
Unnotched Izod Impact			
23°C	1000	J/m	ASTM D4812
23°C [8]	68	kJ/m²	ISO 180/1U
Instrumented Dart Impact			
23°C, Energy at Peak Load	14.7	J	ASTM D3763
--	3.33	J	ISO 6603-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm)	262	°C	ASTM D648
CLTE			
Flow : -40 to 40°C	1.1E-5	cm/cm/°C	ASTM E831
Flow : -40 to 40°C	1.2E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	4.9E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Injection	**Nominal Value**	**Unit**	
Drying Temperature	82.2	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.15 to 0.25	%	
Rear Temperature	266 to 277	°C	
Middle Temperature	282 to 293	°C	
Front Temperature	293 to 304	°C	
Processing (Melt) Temp	282 to 304	°C	
Mold Temperature	93.3 to 110	°C	
Back Pressure	0.172 to 0.344	MPa	
Screw Speed	30 to 60	rpm	
NOTE			
1.	5.0 mm/min		
2.	Type I, 5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	1.3 mm/min		
5.	2.0 mm/min		
6.	1.3 mm/min		
7.	80*10*4		

8.	80*10*4

Recommended distributors for this material

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